Remarks

Reconsideration and withdrawal of the rejection of the claim 44, in view of the amendment and remarks herein, is respectfully requested. Claims 15-43 are cancelled, and claim 44 is amended. Claims 1-14 and 44-46 are pending, and claims 1-14 and 45-46 are allowed. The amendment to claim 44 is intended to advance the application and is not intended to concede to the correctness of the Examiner's position or to prejudice the prosecution of the claims prior to amendment, which claims are present in a continuation of the present application.

Claims 15-43 are canceled solely in response to the Restriction Requirement and without prejudice to their presentation in an appropriately-filed divisional application.

Amended claim 44 is supported at page 3, lines 8-12, page 6, lines 26-28, page 18, lines 3-4, and page 19, lines 16-28 of the specification.

In response to the Examiner's comment under "Priority" at page 2 of the Office Action, the specification is amended at page 1, line 2.

The Examiner rejected claim 44 under 35 U.S.C. § 102(b) as being anticipated by Asahara et al. (Science, 275:964 (1997)) or Levine et al. (U.S. Patent No. 5,132,223). These rejections, as they may be maintained with respect to the pending claims, are respectfully traversed.

The amendment to claim 44, to recite that the expanded endothelial cell population has a cobblestone morphology, moots the § 102(b) rejection over Asahara et al.

Levine et al. describe a method of culturing endothelial cells from solid tissue, i.e., from human blood vessels, such as human umbilical vein endothelial cells. The method employs a gelatin matrix supplemented with endothelial cell growth factor and heparin and/or a dextran sulfate (column 2, lines 3-14 and column 3, line 64-column 4, line 27). Clones were derived from secondary cultures and serially propagated (column 4, lines 47-51). The resulting cultured cells were characterized as endothelial according to morphological and functional criteria (expression of "Factor VIII-related antigen") and production of angiotension-converting enzyme (column 4, lines 53-57).

With respect to the cells described in Levine et al., the Examiner is requested to consider the Rule 132 Declaration filed herewith. In the Rule 132 Declaration, Dr. Robert Hebbel, M.D.,

a co-inventor of the present application, states that vessel wall-derived cells, such as those described in Levine et al., when present in blood, have a limited expansion potential when cultured in contact with a collagen I-coated surface, in the presence of a cell culture medium containing an effective amount of vascular endothelial growth factor, which medium is free of bovine brain extract (paragraph 3 of the Declaration). Generally, by 3 weeks after culturing, 100% of the cells in the culture are endothelial cells which are not derived from the vessel wall (paragraph 3).

Moreover, Dr. Hebbel states that the cells described in Levine et al., in contrast to the population of expanded endothelial cells of the present application, are not amenable to cryopreservation, i.e., they have poor viability after cryopreservation (paragraph 4 of the Declaration).

Therefore, withdrawal of the § 102 (b) rejections is respectfully requested.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 373-6959 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date February 26, 2003 By

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Box AF, Commissioner of Patents, Washington, D.C. 20231, on this 26th day of February, 2003

Dawn M. Poole

Name

Signature